

# Abstract

[0080] An ion storage system is described that includes an ion trap that defines a volume for storing a plurality of ions. A radio frequency (RF) generator is electromagnetically coupled to the volume defined by the ion trap. The RF generator generates an RF electrical field that stores the plurality of ions in the ion trap. A switching device terminates the RF electrical field, which ejects the plurality of ions from the ion trap. An ion detector detects at least a portion of the plurality of ions that are ejected from the ion trap.

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